

IN THE CLAIMS

The status of the claims is listed below.

1. (Currently Amended) A mammalian non-human female animal having at least a partial depletion of ovarian primordial follicles and at least one characteristic of perimenopause and/or menopause induced by administration of 4-vinylcyclohexene diepoxide at a dosage of at least 100 mg/kg/day or 4-vinylcyclohexene at a dosage of at least 1000 mg/kg/day.

Claims 2-3: (Canceled).

4. (Original) The animal of Claim 1, which is suitable as a model of perimenopause.

5. (Original) The animal of Claim 1, which is suitable as a model of menopause.

Claims 6-7: (Canceled).

8. (Original) The animal of Claim 1, wherein the animal has loss of bone mineral density.

9. (Original) The animal of Claim 1, which has at least one characteristic of perimenopause.

10. (Original) The animal of Claim 1, which has at least one characteristic of menopause.

11. (Currently Amended) The animal of Claim 1, wherein said animal has at least one characteristic of peri-menopause is irregular ovarian cyclicity, elevated FSH levels, erratic ovarian  $17\beta$ -estradiol levels, loss of bone mineral density, or reduced ovarian weight.

12. (Currently Amended) The animal of Claim 1, wherein said animal has at least one characteristic of menopause is depletion of ovarian follicles, estrous cyclicity has ~~menstrual periods have~~ ceased, elevated LH levels, elevated FSH levels, diminished ovarian  $17\beta$ -estradiol levels, loss of bone mineral density, or reduced ovarian weight.

13. (Original). The animal of Claim 1, which is a mouse.

14. (Withdrawn) The mouse of Claim 13, which is transgenic.

15. (Withdrawn) The mouse of Claim 13, which is gene-deficient.

16. (Withdrawn) The mouse of Claim 13, which is a knock-in.

17. (Withdrawn) The animal of Claim 1, which is transgenic.

18. (Withdrawn) The animal of Claim 1, which is gene-deficient.

19. (Withdrawn) The animal of Claim 1, which is a knock-in.

20. (Original) The animal of Claim 1, which is a rat.

21. (Original) The animal of Claim 1, which is a primate.

22. (Original) The animal of Claim 1, which is a canine.

23. (Currently Amended) A method of preparing the animal of Claim 1, comprising administering to the animal 4-vinylcyclohexene diepoxide at a dosage of at least 100 mg/kg/day or ~~4-vinylcyclohexene at a dosage of at least 1000 mg/kg/day.~~

Claim 24: (Canceled).

25. (Currently Amended) The method of Claim 23 ~~24~~, wherein the 4-vinylcyclohexene diepoxide is administered intraperitoneally (i.p.), subcutaneously (s.c.), or by an implantable device.

Claims 26-27: (Canceled).

28. (Original) The method of Claim 23, wherein the animal is suitable as a model of perimenopause.

29. (Original) The method of Claim 23, wherein the animal is suitable as a model of menopause.

30. (Original) The method of Claim 23, wherein the animal is a mouse.

31. (Withdrawn) The method of Claim 30, wherein the mouse is transgenic.
32. (Withdrawn) The method of Claim 30, wherein the mouse is gene-deficient.
33. (Withdrawn) A method of screening an agent, comprising: administering an agent to the animal of Claim 1; and evaluating the effect of the agent on the animal.
34. (Withdrawn) The method of Claim 33, wherein the agent is a treatment for one or more (conditions selected from the group consisting of hot flashes, osteoporosis, incontinence, polycystic ovarian disease, Alzheimer's disease, depression, macular degeneration, arthritis, anxiety, obesity, ovarian cancer, diabetes mellitus, vaginal dryness, vaginal discharge, cancers of the reproductive tract, breast cancer, thinning of the skin, loss of libido, colorectal cancer, alopecia, hirsutism, cardiovascular disorders, loss of manual dexterity, osteopenia, cognitive impairments, and dementia.
35. (Withdrawn) The method of Claim 34, wherein said cardiovascular disorders are selected from the group consisting of heart attack, stroke, deep vein thrombosis, hypertension, hypotension, ischemia, pulmonary embolism, atherosclerosis, heart abnormality, hypercholesterolemia, hypertriglyceridemia, hypocholesterolemia, hypotriglyceridemia, vascular defects, vascular homeostasis, and sudden cardiac death.
36. (Withdrawn) The method of Claim 34, wherein the animal is a mouse.
37. (Currently Amended) A method of inducing ovarian failure in a mammalian non-human female animal other than a mouse or a rat, comprising administering to the animal 4-

~~vinylcyclohexene diepoxide at a dosage of at least 100 mg/kg/day an effective amount of at least one compound selected from the group consisting of 4-vinylcyclohexene diepoxide, 4-vinylcyclohexene, 4-vinylcyclohexene 1,2 epoxide, and 4-vinylcyclohexene 7,8 epoxide.~~

Claims 38-39: (Canceled).

40. (Original) The method of Claim 37, wherein the animal is a canine.

41. (Currently Amended) A method of controlling the size of a mammalian non-human animal population, comprising administering 4-vinylcyclohexene diepoxide at a dosage of at least 100 mg/kg/day ~~an effective amount of at least one compound selected from the group consisting of 4-vinylcyclohexene diepoxide, 4-vinylcyclohexene, 4-vinylcyclohexene 1,2 epoxide, and 4-vinylcyclohexene 7,8 epoxide to the animal population~~ ~~sufficient~~ to cause at least partial ovarian failure in at least a portion of the female members of the animal population.

42. (Original) The method of Claim 41, wherein the animal is selected from the group consisting of dogs, cats, hamsters, ferrets, rabbits, sheep, cattle, horses, pigs, deer, elk, moose, bears, goats, monkeys, and wild felines.

Claims 43-60: (Canceled).